CITY OF SAN DIEGO, CALIFORNIA

COUNCIL POLICY

CURRENT

SUBJECT: CRITERIA FOR INSTALLATION OF TRAFFIC SIGNALS
POLICY NO.: 200-06
EFFECTIVE DATE: May 28, 1996

BACKGROUND:

Various types and levels of traffic control methods and devices are utilized by the City depending upon the unique problems presented by the situation.

It is the City's responsibility to provide for traffic control at a level which will result in the greatest degree of safety, and the most efficient flow of traffic with minimum delays within its financial ability to do so.

In the case of intersections, control methods applied range from basic rules of the road to complex traffic signal systems.

Many different traffic situations arise over a period of time at any given intersection. Each situation requires a traffic control response which is tailored to solve the traffic problem. Too much control for a given situation can be as unsafe as too little.

When the right control for the situation is not used, the results may include increased accidents, excessive delays, congestion and diversion of traffic to other routes which may be less desirable in terms of public safety and environmental quality.

Controls used include:

a. Basic Rules of the Road
b. Yield
c. 2-Way Stop
d. All-Way Stop
e. Signalization

In order to ensure that the most appropriate traffic control method is used and that they be as nearly uniform as possible, the California Department of Transportation has developed criteria for the installation of traffic signals for use throughout the State.

PURPOSE:

The purpose of this policy is to set forth the criteria to be used by the City of San Diego for the installation of traffic signals.

POLICY:

It is the policy of the Council that the installation of traffic signals shall be in accordance with minimum criteria established herein, and that such measurements and computation as may be required in determining criteria qualification shall be the responsibility of the City Engineer.

Only those intersections meeting the minimum warrants should be considered for traffic signals. The warrants are the criteria described in the current Traffic Manual, issued by the California Department of Transportation, except for locations that are school crossings which use the criteria set forth in the City's School Pedestrian Safety Manual. The minimum criteria are satisfied when any one of the warrants is met.

The satisfaction of a warrant is not necessarily justification for signals. In special situations, a traffic signal may not be the best form of traffic control for the circumstances.

PRIORITY SYSTEM:

The purpose of the priority rating system is to impartially rank all intersections so qualifying. This rating is used by the City Engineer to make recommendations for the installation of signals under various City improvement programs. It also provides a running inventory of intersections to be resurveyed periodically for significant changes in operating conditions. Points are assigned to six priority factors. The points are totaled and the intersections are arranged by descending number of points to form a priority list. School crossings do not use the point system described herein; the point total calculated from the School Pedestrian Safety Manual method is used for priority ranking purposes.

1. Accidents

   One point is assigned for each vehicular accident susceptible to correction by signalization that occurred at the intersection during the previous three years. Three points are assigned for each accident that involved a pedestrian. At intersections where interim traffic control measures (such as an all-way stop) were installed in anticipation of signalization, the three years prior to the implementation of the interim measure may be used for the purpose of assigning points. There is no limit to the number of points possible.

2. Pedestrians - 10 points possible

   Points are assigned based on the number of pedestrians crossing the higher-volume street during the four highest traffic hours.

3. Average Daily Traffic (ADT) Volumes - 5 points possible

   Points are assigned based on a comparison of the average daily traffic volumes on the intersecting streets.

4. Peak Hour Traffic Volumes - 5 points possible

   Points are assigned based on a comparison of side street traffic volume to main street traffic volume during the peak hour.

5. Speed - 5 points possible

Points are assigned based on the critical speed (85th percentile speed) as measured on the higher-speed street. Points are assigned in this category because of the difficulty that motorists may have judging gaps in traffic on high-speed streets.

6. Special Conditions - (-10) to 10 possible

Points are added or subtracted based on special conditions related to the benefits or drawbacks of signalizing an intersection, as determined by the City Engineer.

Conditions that might result in addition of points include, but are limited to: the presence of an institution (such as a school, park, library, senior center, fire station, or hospital) that generates pedestrians or emergency vehicle traffic; visibility conditions or other safety concerns; an abrupt rural/urban change; an improvement in the progressive movement of traffic; or a desire to upgrade traffic controls to improve community traffic circulation.

Conditions that might result in subtraction of points include, but are not limited to: proximity to another signalized intersection, adequate performance by non-signalized traffic controls, a disruption of circulation pattern or progressive flow, conflict with community character, or expected changes in future conditions that would reduce or eliminate need for signalization.

HISTORY:

Adopted by Resolution R-171009 05/24/1962
Amended by Resolution R-194909 10/01/1968
Amended by Resolution R-255149 10/06/1981
Amended by Resolution R-264586 12/02/1985
Amended by Resolution R-287436 05/28/1996